DOCUMENT RESUME

ED 294 545 IR 013 090

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TITLE Cable Television and Video Recorders. Preliminary Empirical Findings for the Debate on Complementation or Substitution.
PUB DATE Jul 86
NOTE 47p.; Paper presented at the International Television Studies Conference (London, England, July 10-12, 1986).
PUB TYPE Information Analyses (070) -- Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Cable Television; Competition; *Consumer Economics; Foreign Countries; Interviews; Leisure Time; *Marketing; Mass Media; Programing (Broadcast); Questionnaires; Television Research; *Videotape Recorders
IDENTIFIERS *Entertainment; *West Germany

ABSTRACT

This paper addresses the question of whether video recorders and cable television, which are both primarily entertainment media, are in functional competition with one another. Some initial answers are provided based on the results of an extensive two-year research project conducted in the Federal Republic of Germany. This study found that: (1) there is no evidence as yet for a delay in the spread of cable television based on the lead held by video recorders; (2) owners of video recorders watch a slightly more than average amount of television to begin with as compared with persons who do not own video recorders, and they do not increase their television consumption after subscribing to cable television; (3) subscription to cable television has a strong impact on using video recorders, i.e., recording television programs tends to increase while renting pre-recorded cassettes decreases dramatically; (4) access to the broader programming on cable television encourages persons with diverse interests and sufficient free time to make more active use of videorecorders, while people with a limited leisure time budget reduce their use of video recorders since their entertainment needs are now met by cable television; and (5) the future dissemination/use of cable television and video recorders essentially depends on the attractiveness of the new programming that must compete with alternative options for limited leisure budgets. Project findings are summarized in 16 tables. (CGD)

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Cable Television and Video Recorders

Preliminary empirical findings for the debate on complementation or substitution

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Paper presented to the 1986 International
Television Studies Conference

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Does video "enhance"[1] television, particularly cable television, by making it independent of a set program schedule, or will the video boom of recent years kill cable television by preventing the rapid diffusion essential to amortizing the high investment? Does the much more extensive range of programs on cable television become more attractive in combination with video recorders as a medium for recording and storage and will this result in an interactive process, with the demand for cable television stimulating the demand for video recorders and vice-versa? Or will the effect of video recorders, which definitely have the advantage based on the boom they have experienced in past years, be to nip the demand for cable television in the bud at an early stage? A process of complementation according to specific function or a situation of competition resulting in displacement--that is the basic question we are posing. Well-founded arguments for both theses on the competition between the new media have been presented in the literature. Empirical evidence from the German regional cable pilot project in Ludwigshafen/Vorderpfalz is to serve as a microcosm, using the results of a controlled field experiment, with the same persons interviewed before and after receiving cable television (panels).

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In her well-known investigation, "Television and the Child," Hilde Himmelweit, the English communication researcher, presented the thesis of the "substitution of that which is similar in function."[2] Whenever two media with essentially interchangeable functions compete with one another, the medium which meets the recipients' needs more effortlessly, requiring a lesser material, physical and psychological investment, will gain the upper hand. This medium will ultimately prove to be the stronger rival. Insofar as two media continue to be used concurrently, this is usually due to one of the two having an additional specialized function.

There are extensive data to support Hilde Himmelweit's thesis. Thus the spread of television as an entertainment medium doubtless robbed

the cinema, as the very much more established entertainment medium, of much of its former public. Television also had a considerable impact on the use of the entertainment section of the daily papers, especially serialized novels.[3] Will this tendency toward displacement continue in the future?

Cable television, as a new transfer medium, whose introduction in the Federal Republic of Germany has been linked with the entry of private television into the market, and video recorders as a new recording and storage medium, are both primarily entertainment media. This is shown by content analyses of the programs on cable TV (feature films, series) [4] as well as of video cassettes which have been purchased, rented or recorded personally.[5] Both media seek to meet the entertainment needs of a mass public by offering a broader choice of programs. Added to this are certain specific functions. For cable TV this would include, in particular, better transmission and reception, especially in areas with poor reception. Persons who own video recorders have access to entertainment which is not included on public television or which may not be shown due to laws protecting children and young people (e.g. pornography, violence, war). There are currently approximately 6,000 different pre-recorded videotapes available in the Federal Republic of Germany.[6] 83 percent of the buyers of video recorders plan to use them to record television programs for time-shifted viewing at a more convenient time later on;[7] 71 percent want to be able to watch feature films they have rented or purchased; 8 percent plan to store certain programs; and only 5 percent intend to make their own films with a video camera.[8] The feature the owners of video recorders consider most useful is independence from television programming which limits them to specific times and content. Thus "temporal flexibility, physical mobility and autonomy of content" are considered the three basic motives for acquiring a video recorder,[9] making it possible to select an individually optimized program in terms of both content and time.[10]

Because they are both primarily entertainment oriented, there is a partial competition in function between video recorders and cable TV.

In addition, each of the new media features specific uses, thus initially leaving the question open as to whether a process of displacement or complementation is involved and at the same time lending interest to this question.

In a synoptic comparison of how cable television and video recorders have penetrated different countries, Klaus Schrape and Michael Witte of the PROGNOS Institute in Basel show that "those countries which already had a high concentration of cable television when video recorders were introduced (1979) and in which over 50 percent of households had cable TV in 1982/83, in late 1983 show a rate of penetration with video recorders of between 7 and 14 percent of households with cable television. On the other hand, the two countries which had little or no cable television (Federal Republic and Great Britain) show an above-average penetration rate of television households with video recorders at 18.1 and 30 percent respectively."[11] Schrape and Witte conclude from this that in countries with an advanced rate of cable penetration (e.g. Belgium, Holland, Luxembourg) there is a clear delay in the spread of video recorders, while in countries with a clear lead in the diffusion of video recorders (Great Britain, Federal Republic) "the cable TV market will grow more slowly than in the countries where cable is in the lead."[12] Partial competition according to function, on the one hand, and limited buying power of private households, on the other, are the premises these prognoses are based on.

In contrast to these experiences and expectations, video recorders are at present experiencing a boom in the U.S. despite a comparatively high rate of cable TV at approximately 50 percent, which caused USA Today, in its issue of January 27, 1986, to predict a video recorder penetration rate of 85 percent for American households in 1995. "VCRs Up, Cable Down?" queried Marketing & Media Decisions in January 1985[13] and Cable News, in its October 1984 issue, showed its concern by asking: "What Does it Mean for Cable?"[14] A Showtime/TMC study was quick to provide a reassuring answer: "VCR More Friend Than Foe to Pay Cable."[15] The competition between the two media is

obviously observed with great interest in the U.S.

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In the Federal Republic of Germany, the Commission for the Development of Technical Communications (KtK) did not see its way clear to make a recommendation to construct a federal cable distribution network. Instead it proposed to begin by establishing pilot projects as models, justifying this by the "lack of a pronounced and urgent need."[16] In 1984, in an updated expert opinion, the chairperson of the commission, Eberhard Witte, confirmed the fact that there was "an as yet unmet need for entertainment" among the population,[17] which evidently was not being met by the existing public television networks. Since there was also enough buying power available to pay for new media content, in the early eighties there was "considerable demand in the media market which was met--lacking other alternatives--by the market for video recorders and video cassettes."[18] It is estimated that approximately 17 percent of households in the Federal Republic owned a video recorder in late 1985. Cable television programs were shown for the first time on January 1, 1984 in the cable pilot project region Ludwigshafen/ Vorderpfalz and somewhat later in the pilot project areas Munich, Dortmund and Berlin. On a federal level, cable TV, with its wider range of programs and inclusion of private television, is not yet of major importance.

After more than two years of experience with cable television in the Ludwigshafen/Vorderpfalz area, the extensive research conducted in conjunction with the project provides some initial answers to the questions of competition between the two media. The Institut für Demoskopie Allensbach was commissioned by the research commission to conduct a controlled field experiment designed as a panel in the cable project area. In order to measure the effects of cable television, persons who had applied for cable TV as well as a representative sample of the population were interviewed in face-to-face interviews with a standardized questionnaire (initial survey) in late 1983 and early 1984, and thus immediately before broadcasting began. In the

meantime, some of these respondents live in households which have cable TV. This test group is contrasted with a control group of persons also living in the pilot project region who essentially have the same characteristics. In the interim the same persons in both groups have been interviewed twice, most recently in late fall 1985, at which time 544 persons in the test group with cable TV and 307 persons in the control group without cable TV were reached again. This analysis is based on a comparison of statements by the same persons in the initial survey and in the second survey almost two years later. The very extensive catalogue of questions only included a few questions which are closely related to the problem under discussion and which were analyzed in depth. The investigation did not address itself to the relationship between cable television and the use of video recorders. Thus the findings presented here are to be considered by-products, as it were. An investigation devoted specifically to this subject would have included far more detailed questions, particularly on different ways of using video recorders, than it was possible to do in this instance. Nonetheless some preliminary answers are provided by this investigation, though in part admittedly based on a very limited sample.[19)]

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Thesis 1: There is no evidence as yet for a delay in the spread of cable television based on the lead held by video recorders. The decision to purchase is usually not an either-or choice; it is often an as-well-as decision.

At 18 percent among a representative sample, the concentration of video recorders in the project area, which includes the city of Ludwigshafen as well as communities belonging to the greater metropolitan area west of Mannheim, was approximately 7 percent higher than the federal average of approximately 11 percent[20)] in 1983/84. In a development paralleling the spread of cable television, VCR concentration has grown by an additional 8 percent to 26 percent currently in the space of barely two years (see Figure 1). In the same time period,

cable TV showed a very successful development (at the conclusion of 1985, 44,000 subscriptions or applications). In the communities and neighborhoods in the project area where a cable TV hookup was technically possible by the end of 1984 ("homes passed"), the percentage of persons who live in a household with cable TV rose from 5 to 49 in two years time. On the one hand, this indicates that broad groups of the population had entertainment needs which had not been met as yet, as well as sufficient buying power. On the other hand, this must also be said to represent a successful effort on the part of local marketing efforts.

For 14 new programs which can only be received via a new cable hookup, such as, for example, SAT 1, RTL plus, 3SAT, ZDF Musikkanal, EPF, Music Box, Sky Channel, Offener Kanal (Public access), Bürgerservice (Public service), TF 1, FR 3, Antenne 2 and others, in addition to the 6 to 7 programs on the public television networks ARD and ZDF which had been available up to then, these cable households pay 11 DM in addition to the normal television fees of DM 16.50 monthly. Added to this were DM 125 for the cable subscription within the subscription period as well as DM 250 for the hookup for the individual apartment within the building. The average investment for cable television was actually approximately DM 1600 since a great many households acquired a new television set designed to receive cable television prior to subscribing to it. This amount corresponds almost precisely to the cost of purchasing a video recorder.

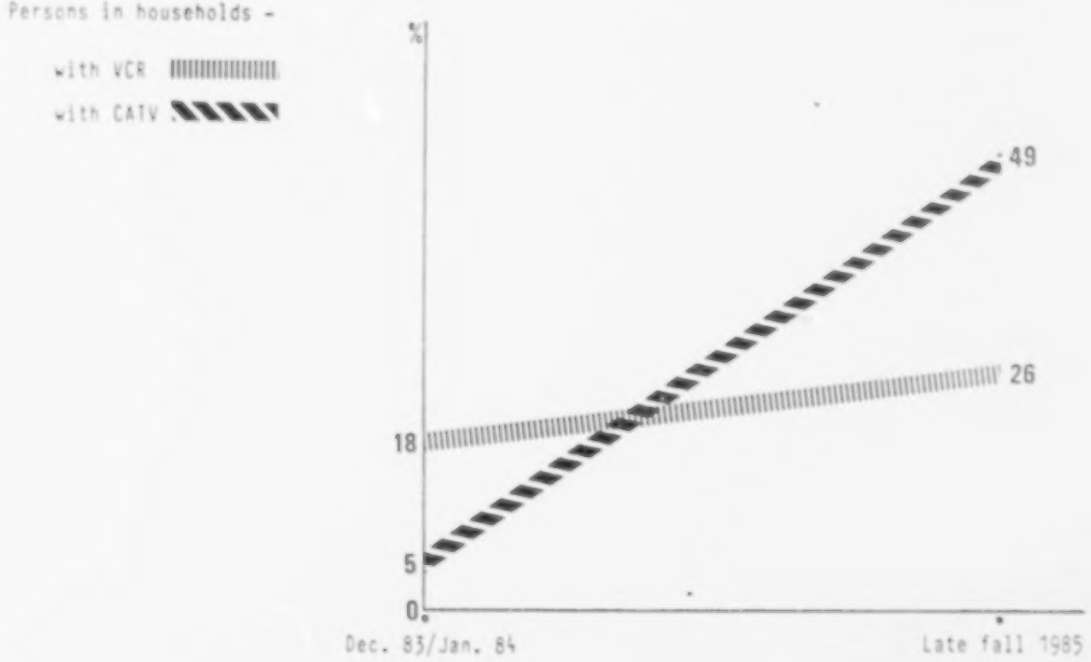
A comparison of the test group and the control group shows that cable households were equipped with video recorders to an above average extent from the beginning and that there is also a considerable increase after subscribing to cable TV, albeit--understandably given the high level already attained--not quite as pronounced as in the control group which did not subscribe to cable TV (Table 1). Many video pioneers were also cable pioneers (Table 2). And even today, with cable TV well on its way to becoming the medium of the majority of the population in the project area Ludwigshafen/Vorderpfalz, an above average amount of persons owning video recorders state their intention

to subscribe to cable. This applies particularly to new VCR households who, after purchasing a video recorder, fairly frequently also state their intention to subscribe to cable TV (Table 3).

Now that the phase of the early cable pioneers is a thing of the past and we are at an advanced stage of cable TV in the project area, there are no indications that ownership of a video recorder serves to delay subscription to cable; cable TV has grown to the point where it long ago caught up with video recorders and meanwhile has clearly passed them. There are no indications so far that a decision in favor of a video recorder is a decision against cable television, or, conversely, that subscribing to cable TV might represent a decision against video recorders. On the contrary, there are clear indications of a process of mutual stimulation.

Figure 1

Diffusion of Video Recorders and Cable TV in the Communities and Districts of the Cable Pilot Project Region Ludwigshafen/Vorderpfalz Which Had the Opportunity to Subscribe to Cable TV at an Early Stage



Sample: Representative samples of the population in the communities and districts of the pilot project region who were provided with the necessary cable hookup from the German postal service by the end of 1984 ("homes passed") n = 555

SOURCE: Allensbach Archives, IfD Surveys 1511, 1515

Owning a Video Recorder

QUESTION: "Do you have a video recorder in your household?"

Table 1
Cable pilot project
Region Ludwigshafen/Vorderpfalz
Panel groups
Households with video recorders

	Test group which subscribes to CATV		Control group which does not subscribe to CATV	
	Before broadcasting of CATV began (Dec.,1983/Jan.,1984)	Two years later (late fall 1985)	Before broadcasting of CATV began (Dec.,1983/ Jan.,1984)	Two years later (late fall 1985)
	%	%	%	%
Yes	25	33	14	22
No	75	67	86	78
	100	100	100	100
Index	100	134	100	152
	(n = 544)		(n = 307)	

December 1983 / January 1984: Above Average Intentions to Subscribe to Cable TV in Households With Video Recorders

Table 2
Cable pilot project
Region Ludwigshafen/Vorderpfalz
Representative cross-section of the population

	Representative cross-section of the population	Persons in households -	
		with VCR	without VCR
	%	%	%
Intend to subscribe to cable television	23	40	20
Undecided as yet	42	43	42
Definitely don't want to subscribe	35	17	38
	100	100	100
	(n = 1868)	(n = 301)	(n = 1567)

SOURCE: Allensbach Archives, IfD Surveys 1511, 1515

New Owners of VCRs are More Interested in Subscribing to Cable TV

Table 3
Cable pilot project
Region Ludwigshafen/Vorderpfalz
Two surveys of the same persons in households without cable TV

	Persons in households without cable TV					
	with VCR				without VCR	
	had VCR from the beginning		acquired VCR later			
	Before broadcasting of CATV began (Dec.'83/ Jan.'84)	Two years later (late fall 1985)	Before broadcasting of CATV began (Dec.'83/ Jan.'84	Two years later (late fall 1985)	Before broadcasting of CATV began (Dec.'83/ Jan.'84)	Two years later (late fall 1985)
	%	%	%	%	%	%
Approve of cable TV being available	54	51	54	71	26	32
Do not approve	20	3	14	x	37	16
Don't care	18	33	18	25	26	41
Undecided, no concrete reply	8	13	14	4	11	11
	100	100	100	100	100	100
Have already applied for cable TV or are definitely planning to do this	33	41	21	32	11	15
	(n = 39)		(n = 28)		(n = 235)	

SOURCE: Allensbach Archives, IfD Surveys 1511, 1515

Thesis 2: Owners of video recorders watch a slightly more than average amount of television to begin with; compared with persons who do not own video recorders, they do not increase their television consumption after subscribing to cable TV

It is frequently pointed out in the literature that both persons who subscribe to cable TV and persons who own video recorders watch a more than average amount of television.[21] The panel design for this study, with a survey of the same persons before subscribing to cable TV and after, shows that subscribers to cable TV used television to an above average extent to begin with and that their television consumption did not increase much after subscribing to cable TV, that is, approximately 11 minutes per day (from 2 hours and 11 minutes to 2 hours and 22 minutes) (Table 4). This increase is minimal in view of the fact that television consumption by non-subscribers to cable TV also increased in the same time period by about eight minutes per day, primarily as a result of the more attractive television programming fare offered by the traditional public television networks in competition with new private television.[22]

Persons who have owned a video recorder for at least two years have not increased their television consumption in the last two years beyond the original slightly higher than average level, whether or not they subscribe to cable TV. The only exception is the small group of new owners of video recorders, who definitely increased their television consumption while at the same time making above average use of their video recorder, at least in the initial months after purchasing a video recorder (Table 5).

Changes in Television Viewing Habits in a Comparison Covering Two Years

Table 4
Cable pilot project
Region Ludwigshafen/Vorderpfalz
Panel groups

Persons in households with cable television -

	total		with VCR*)		without VCR**)	
	before broadcasting of CATV began (Dec.'83/ Jan.'84)	two years later (late fall 1985)	before broadcasting of CATV began (Dec.'83/ Jan.'84)	two years later (late fall 1985)	before broadcasting of CATV began (Dec.'83/ Jan.'84)	two years later (late fall 1985)
Average amount of time spent daily watching television (hrs./min.)	2'11	2'22	2'23	2'21	2'10	2'23
	11 min. more (n = 544)		2 min. less (n = 120)		13 min. more (n = 351)	

Persons in households without cable television -

	total		with VCR*)		without VCR**)	
	before broadcasting of CATV began (Dec.'83/ Jan.'84)	two years later (late fall 1985)	before broadcasting of CATV began (Dec.'83/ Jan.'84)	two years later (late fall 1985)	before broadcasting of CATV began (Dec.'83/ Jan.'84)	two years later (late fall 1985)
Average amount of time spent daily watching television (hrs./min.)	2'03	2'11	2'07	2'01	2'01	2'11
	8 min. more (n = 307)		6 min. less (n = 39)		10 min. more (n = 235)	

*) Persons owning a video recorder at the time of both measurements
**) Persons who did not own a video recorder at either point in time

SOURCE: Allensbach Archives, IfD Surveys 1511, 1515

Use of Television and Video Recorders

Table 5
Cable pilot project
Region Ludwigshafen/Vorderpfalz
Panel groups

	Persons in households with CATV and VCR			
	VCR acquired before CATV was initiated		VCR not acquired until later	
	Before broadcasting of CATV began (Dec.'83/ Jan.'84)	Two years later (late fall 1985)	Before broadcasting of CATV began (Dec.'83/ Jan.'84)	Two years later (late fall 1985)
Average amount of time spent watching television weekdays (hrs./min.)	2'23	2'21 (- 2 min.)	1'56	2'19 (+ 23 min.)
VCR used *) -		%		%
"daily"	-	13 } 48	-	17 } 70
"several times a week"	-	35 }	-	53 }
"once a week"	-	29	-	15
"several times a month"	-	13	-	9
"less often than that"	-	9	-	3
Impossible to say	-	1	-	3
		100		100
		(n = 120)		(n = 59)

	Persons in households without CATV			
	VCR acquired before CATV was initiated		VCR not acquired until later	
	Dec.'83/ Jan.'84	Two years later (late fall 1985)	Dec.'83/ Jan.'84	Two years later (late fall 1985)
Average amount of time spent watching television weekdays (hrs./min.)	2'07	2'01 (- 6 min.)	2'07	2'16 (+ 9 min.)
In late fall 1985, used VCR -		%		%
"daily"	-	13 } 57	-	25 } 71
"several times a week"	-	44 }	-	46 }
"once a week"	-	23	-	4
"several times a month"	-	13	-	7
"less often than that"	-	5	-	18
Impossible to say	-	2	-	x
		100		100
		(n = 39)		(n = 28)

*) Not included in the initial investigation in Dec. '83/Jan. '84

SOURCE: Allensbach Archives, IfD Surveys 1511, 1515

Thesis 3: Subscription to cable TV has a strong impact on using video recorders: Recording television programs tends to increase while renting pre-recorded cassettes decreases dramatically

Persons with a video recorder were asked to state how many pre-recorded cassettes they had rented in the six months prior to the interview and how many television recordings they had made themselves.[23] The results show the distinctions: After subscription to cable television, television programs from the expanded programming fare were often recorded for time-shifted viewing at a more convenient time. Only 12 percent of the cable TV subscribers with video recorders had not done this in the last six months (see Table A1 in the appendix). An average of 11.8 cassettes were now used to record television programs in the six month period, compared with 10.4 cassettes previously. In contrast, the renting of pre-recorded video cassettes decreased dramatically after subscription to cable TV, from 10.7 cassettes prior to cable subscription to an average of only 2.5 cassettes in the six month period. The percentage of owners of video recorders who no longer rented any cassettes at all rose from 45 to 72 percent for households with cable (see Table A2 in the appendix). Here, too, it is important to observe the control group which does not subscribe to cable TV. Changes there tend in the same direction, although they are not quite so pronounced. A certain dulling effect once the appeal of something new has worn off as well as stricter laws protecting youth might explain why the rental and sale of pre-recorded video cassettes showed a definite decline in the Federal Republic in 1985, as shown by new statistics[24] (Table 6).

Table 6
Cable pilot project
Region Ludwigshafen/Vorderpfalz
Panel groups

After Subscribing to Cable Television There Tends to be an Increase in Recording Television Programs . . .

QUESTION put to persons in households with video recorders:
"A video recorder permits you to record television programs and watch them at a later point in time. How many cassettes have you used to record such television programs in the last six months?"

	Persons with VCR*) and CATV		Persons with VCR*) but no CATV	
	Before broadcasting of CATV began (Dec.'83/ Jan.'84)	Two years later (late fall 1985)	Before broadcasting of CATV began (Dec.'83/ Jan.'84)	Two years later (late fall 1985)
Average number of video cassettes used to record television programs in the last six months	10.4	11.8	12.3	10.3
Index	100	113	100	84
	(n = 120)		(n = 39)	

. . . At the Same Time a More Than Average Decrease in Renting Videotapes

QUESTION put to persons in households with video recorders:
"How many pre-recorded video cassettes have you rented in the last six months?"

	Persons with VCR*) and CATV		Persons with VCR*) but no CATV	
	Before broadcasting of CATV began (Dec.'83/ Jan.'84)	Two years later (late fall 1985)	Before broadcasting of CATV began (Dec.'83/ Jan.'84)	Two years later (late fall 1985)
Average number of video cassettes rented in the last six months	10.7	2.5	12.8	5.4
Index	100	23	100	42
	(n = 120)		(n = 39)	

*) Persons owning a video recorder at the time of both measurements
Sample: Two interviews with the same persons

SOURCE: Allensbach Archives, IfD Surveys 1511, 1515

The table showing fluctuations in video recorder use (Table 7) indicates that the slight increase in recording television programs oneself is the result of two contrary tendencies: 13 percent of the respondents in cable households with video recorders reduced their recording of television programs after subscribing to cable television, while 21 percent definitely increased it. There was not much change for 66 percent.

The instances of a strong increase or a strong decrease, respectively, in recording for time-shifted viewing as the dominant mode of using video recorders are to be investigated in greater detail here despite the limited sample size because they appear to provide some important initial conclusions about complementary and substitutive use.

Analysis of Fluctuation in Video Recorder Use in Households with Cable TV: Recording Television Programs

Table 7
Cable pilot project
Region Ludwigshafen/Vorderpfalz
Two surveys of the same persons in households with CATV and VCR

Surveys with the same persons who owned video recorders before and after subscribing to cable TV

1. Absolute numbers

t2: LATE FALL 1985
In the last 6 months have recorded television programs onto the following number of blank cassettes:

t1: DEC. 1983/JAN. 1984	20 and more	10 to 19	5 to 9	1 to 4	None	Total
20 and more	7	5	1	5	3	21
10 to 19	3	4	1	4	1	13
5 to 9	2	4	3	6	1	16
1 to 4	4	9	5	19	3	40
None	3	3	3	14	6	39
Total	19	25	13	48	14	119

2. Percentages

t2: LATE FALL 1985
In the last 6 months have recorded television programs onto the following number of blank cassettes:

t1: DEC. 1983/JAN. 1984	20 and more	10 to 19	5 to 9	1 to 4	None	Total
20 and more	6	4	1	4	3	18
10 to 19	3	3	1	3	1	11
5 to 9	2	3	2	5	1	13
1 to 4	3	8	4	16	2	33
None	2	3	3	12	5	25
Total	16	21	11	40	12	100

Sample: Two interviews with the same persons who owned a video recorder at both points in time and provided concrete replies about the number of video cassettes used on both occasions

SOURCE: Allensbach Archives, IfD Surveys 1511, 1515

Thesis 4: Access to the broader programming on cable television encourages persons with diverse interests and sufficient free time to make more active use of videocorders. Persons with a limited leisure time budget, however, reduce their use of video recorders since their entertainment needs are now essentially met by cable television.

Persons who record many more television programs after subscribing to cable TV do not rent as many pre-recorded cassettes and also tend to watch less television (see Table A3 in the appendix). In socio-demographic terms, they are distinguished by certain important characteristics. Thus the group of persons who are encouraged to record more television programs with the video recorder due to increased television programming include a more than average number of persons 50 and older with a higher education and coming from occupations as white-collar workers, civil servants, self-employed persons and in the professions with a higher level of income. These characteristics essentially also apply to the subsequent group of purchasers of video recorders who are now taking their place in the market, while the early video pioneers, an above average number of whom were 30 to 49 year-old skilled workers, lower-level white collar-workers and civil servants with good incomes--for whom video recorders also represented a matter of prestige--reduced their use of video recorders after subscribing to cable TV. Persons who now make more use of their video recorders to record television programs often do not work or no longer work and thus have more leisure time available than do those most of whom work and who have in the meantime limited their recording of television programs. It is also indicative that these persons have suffered a reduction in leisure time from three hours and 42 minutes daily to three hours and six minutes.

This also explains why they have reduced their television consumption in addition to their use of video recorders (see Table A 4 in the appendix). As is shown by the responses to the question about which programs make subscribing to cable TV worthwhile (Table 8), the main entertainment interests of jobholders with limited time available

are satisfied by cable TV, so that using a video recorder after subscribing to cable TV appears not as necessary. It is not disappointment with the quality of the new additional programming on cable TV which keeps this group of persons from recording television programs, for they were evidently already satisfied with the quality of the programs on the traditional public television networks (see Table A 5 in the appendix).

Increased use of video recorders to record television programs evidently presupposes both a broader range of interests and more leisure time.

Which Programs Make Cable TV Worthwhile?

Table 8
Cable pilot project
Region Ludwigshafen/Vorderpfalz
Panel groups

QUESTION: "Various programs shown on cable TV are listed here. Which of them would you say make it worthwhile to subscribe to cable TV?"
(Presentation of a list)

- Excerpt -

Persons in households with CATV and VCR*) who after receiving CAtV record television programs -

	more than before		about the same amount		less than before	
	Before broadcasting of CATV began (Dec.'83/ Jan.'84)	Two years later (late fall 1985)	Before broadcasting of CATV began (Dec.'83/ Jan.'84)	Two years later (late fall 1985)	Before broadcasting of CATV began (Dec.'83/ Jan.'84)	Two years later (late fall 1985)
	%	%	%	%	%	%
1. Entertainment						
Feature films	67	71	81	84	73	93
Shows, entertainment, cabaret	50	42	58	49	47	67
Music Box with the latest hits	33	29	51	35	33	27
Classical music concerts	17	21	16	16	7	7
2. Information and Documentaries						
Educational, informative programs	33	54	44	35	47	27
Nature, plants, animals from other countries..	38	50	53	39	60	47
Other countries, people, adventure	50	42	58	39	53	60
Language programs: English, French, Spanish.	21	25	38	10	33	13
3. Regional and Local Information						
Local sports events ..	25	50	52	51	53	47
Service announcements	46	38	53	23	60	20
Current leisure time activities	25	29	61	24	53	33
Local information and background information	50	21	43	33	33	20
4. Reports on Major Sports Events**)	-	63	-	68	-	73
	(n = 24)		(n = 80)		(n = 15)	

*) Persons owning a video recorder at the time of both measurements
**) Not included in the initial investigation in Dec. '83/Jan. '84

SOURCE: Allensbach Archives, IfD Surveys 1511, 1515

Thesis 5: The future dissemination and use of cable TV and video recorders essentially depends upon how attractive the new programming is which must compete with alternative options for limited leisure time budgets

The cost of cable television has not been a definite limiting factor as concerns the spread of cable TV in the pilot project area Ludwigshaven/Vorderpfalz up to the present. This is especially true if the lowest income brackets are excepted, especially older retirees living alone. Owners of video recorders, who have paid for the subscription to cable TV and who additionally have to pay the monthly fees, in general term this cost--and this is even truer now than it was prior to subscribing to cable TV--"just right" (73 percent) or even "rather low" (3 percent). Only one out of five owners of a video recorder with a subscription to cable TV says costs are "too high" (Table 9). This not only indicates a high level of satisfaction with cable TV but also sufficient purchasing power to finance the acquisition and use of both media side-by-side.

The level of satisfaction with cable TV is the same for persons who own a video recorder and for those who do not. For most of them, cable television represents "an enhancement even without video" but persons who were encouraged by the reception of more extensive programming to do more recording express above average satisfaction, possibly feeling that there is added usefulness (see Table A6 in the appendix).

The investigative results from the cable pilot project in the Ludwigshafen area underline the fact that the use of video recorders and television consumption are very much dependent upon leisure time budgets. A jobholder, for example, who feels that he or she does not have enough time at all to make use of these new media will give careful thought to making a purchase. Rather than being an objective matter, whether or not there "is time for something" is a matter of subjective judgment. If what is offered is attractive enough, "time will be found." In this respect, substitutive or complementary use of the two media is strongly dependent upon how attractive the programming is (Table 10).

View of the Cost of Cable TV

Table 9
Cable pilot project
Region Ludwigshafen/Vorderpfalz
Panel groups

	Persons in households with cable TV -					
	total		with VCR*)		without VCR*)	
	Before broadcasting of CATV began (Dec.'83/ Jan.'84)	Two years later (late fall 1985)	Before broadcasting of CATV began (Dec.'83/ Jan.'84)	Two years later (late fall 1985)	Before broadcasting of CATV began (Dec.'83/ Jan.'84)	Two years later (late fall 1985)
	%	%	%	%	%	%
Consider the monthly costs of cable TV -						
rather low	6	7	5	3	7	8
	56	70	57	76	60	68
just right	50	63	52	73	53	60
too high	33	24	34	20	30	26
Undecided, no reply	11	6	9	4	10	6
	100	100	100	100	100	100
	(n = 544)		(n = 120)		(n = 351)	

*) At the time of both measurements

SOURCE: Allensbach Archives, IfD Surveys 1511, 1515

Use of Video Recorders and Amount of Television Viewed are to a Great Degree Dependent Upon Leisure Time Available

Table 10
Cable pilot project
Region Ludwigshafen/Vorderpfalz
Persons in households with cable TV and VCR

QUESTION: "How many hours are available to you each day as leisure time--that is, aside from your work, in which you are free to do as you like?" (Sleeping, eating, getting dressed, etc. do not count as leisure time).

LATE FALL 1985	Persons in households with CATV and VCR*)			
	Total	Leisure time per day -		
		less than 3 hrs.	3 to 4 hrs.	5 or more hrs.
	%	%	%	%
VCR used *) -				
"daily or several times a week"	55	48	56	58
"once a week"	24	17	29	23
"several times a month"	12	15	7	17
"less often than that"	7	15	7	2
Impossible to say	2	5	1	x
	100	100	100	100
Average amount of time spent watching television weekdays (hrs./min.)	2'20	1'53	2'10	2'58
Index	100	70	95	117
In the last 6 months, average number of video cassettes -				
- used to record television programs	11.1	8.4	11.4	12.8
Index	100	76	103	115
- rented	3.0	2.6	1.9	5.0
Index	100	87	63	167
	(n = 179)	(n = 41)	(n = 86)	(n = 52)

*) Total of persons owning a VCR for a long time and new owners

SOURCE: Allensbach Archives, IfD Survey 1515

+ + + + +

The experience with the German cable pilot project has served as a microcosm, representing detailed observations in a specific frame of reference, which are not necessarily applicable or generalizable to overall developments in the Federal Republic of Germany or other countries. The fact that the sample is in part rather small suggests that caution should be exercised in interpreting the evidence and rules out sweeping conclusions. The findings from this controlled field experiment with panel surveys of the same persons do suffice, however, to summarize the theses which have been presented.

There is empirical evidence both for substitutive and complementary use of cable television and video recorders. It is mainly the rental and also probably the sales of pre-recorded video cassettes which are set back. This simply means that a general development in the market, which is attributable to other factors, (e.g. video recorders having lost some of their appeal for those who have owned them for some time, stricter legislation protecting youth), is reinforced by access to the broader programming of cable TV. There are certainly more indications of complementary use. Ownership of video recorders has tended to encourage rather than to slow the spread of cable TV in the area under investigation. And even at the advanced stage we have now reached, new owners of video recorders exhibit a more than average interest in subscribing to cable TV. In view of renewed buying power which is not, however, paralleled by expandable leisure time, the quality of the additional programming will ultimately be the decisive factor. Especially if additional possibilities such as storage, library-building and designing one's own programs are to be made use of, intensive use of video recorders presupposes more independent activity than does cable TV, which can be called forth effortlessly onto the screen by remote control and thus also has an edge with respect to convenience. In addition, subscribing to cable TV improves the quality of reception and provides access to more topical local information as well as to more entertainment.

If stricter regulations protecting youth limit the repertoire of video cassettes and new private television succeeds in offering attractive programs and not just "more of the same," cable TV may well prove to be the "stronger rival" in the long run.

Cable television does not require video for enhancement; it is attractive enough on its own. It appears that video recorders will hold their own alongside cable TV among the rather limited sector of the population which is willing to invest enough energy to benefit from the additional uses.

APPENDIX

Table A 1
Cable pilot project
Region Ludwigshafen/Vorderpfalz
Panel groups
Households with video recorders

Renting Video Cassettes

QUESTION put to persons in households with video recorders*):

"How many video cassettes have you rented in the last six months?"

	Test group which subscribes to CATV		Control group which does not subscribe to CATV	
	Before broadcasting of CATV began (Dec. 1983/Jan. 1984)	Two years later (late fall 1985)	Before broadcasting of CATV began (Dec. 1983/Jan. 1984)	Two years later (late fall 1985)
	%	%	%	%
20 and more cassettes	21	3	26	3
10 - 19 cassettes	18	7	18	18
5 - 9 cassettes	9	11	13	5
1 - 4 cassettes	7	7	7	8
None	45	72	36	66
	100	100	100	100
Average number of cassettes	10.7	2.5	12.8	5.4
	(n = 120)		(n = 39)	

*) Persons owning a video recorder at the time of both measurements

SOURCE: Allensbach Archives, IfD Surveys 1511, 1515

Recording Television Programs

Table A 2
Cable pilot project
Region Ludwigshafen/Vorderpfalz
Panel groups
Households with video recorders

QUESTION put to persons in households with video recorders*):

"A video recorder permits you to record television programs and watch them at a later point in time. How many cassettes have you used to record such television programs in the last six months?"

	Test group which subscribes to CATV		Control group which does not subscribe to CATV	
	Before broadcasting of CATV began (Dec. 1983/Jan. 1984)	Two years later (late fall 1985)	Before broadcasting of CATV began (Dec. 1983/Jan. 1984)	Two years later (late fall 1985)
	%	%	%	%
20 and more cassettes	18	16	28	28
10 - 19 cassettes	11	21	18	23
5 - 9 cassettes	13	11	15	8
4 cassettes	11	10	10	10
3 cassettes	6	7	8	10
2 cassettes	7	12	5	21
1 cassette	9	11	8	5
None	25	12	8	5
	100	100	100	100
Average number of cassettes	10.4	11.8	12.3	10.3
	(n = 120)		(n = 39)	

*) Persons owning a video recorder at the time of both measurements

SOURCE: Allensbach Archives, IfD Surveys 1511, 1515

Use of Television and Video Recorders

Table A 3
Cable pilot project
Region Ludwigshafen/Vorderpfalz
Panel groups

	Persons in households with CATV and VCR* total		Persons in households with CATV and VCR*) who after receiving CATV record television programs -					
			more than before		about the same amount		less than before	
	before broadcasting of CATV began (Dec. '83/ Jan. '84)	two years later (late fall 1985)	before broadcasting of CATV began (Dec. '83/ Jan. '84)	two years later (late fall 1985)	before broadcasting of CATV began (Dec. '83 Jan. '84)	two years later (late fall 1985)	before broadcasting of CATV began (Dec. '83/ Jan. '84)	two years later (late fall 1985)
Average amount of time spent watching television weekdays (hrs./min.)	2'23	2'21	2'17	2'08	2'27	2'29	2'14	2'02
	- 2 min.		- 9 min.		+ 2 min.		- 12 min.	
In the last 6 months, average number of video cassettes -								
- used to record television programs	10.4	11.8	2.0	26.4	9.4	9.3	29.6	1.9
Index	100	113	100	1320	100	99	100	6
- rented	10.7	2.5	4.6	1.5	12.9	3.2	6.7	0.7
Index	100	23	100	33	100	25	100	10

*) Persons owning a video recorder at the time of both measurements

SOURCE: Allensbach Archives, IfD Surveys 1511, 1515

Socio-Demographic Breakdown

Table A 4
Cable pilot project
Region Ludwigshafen/Vorderpfalz
Panel groups

	Persons in households with CATV and which -		Persons in households with CATV and VCR*) who after receiving CATV record television programs -		
	had VCR from the beginning	acquired VCR later	-more than before	about the same amount	less than before
	%	%	%	%	%
Sex					
Men	47	54	37	51	47
Women	53	46	63	49	53
	100	100	100	100	100
Age					
14 - 29	29	27	21	30	33
30 - 49	53	39	42	55	60
50 or over	18	34	37	15	7
	100	100	100	100	100
Education					
Elementary	55	51	50	56	60
Intermediate (Mittlere Reife)	32	15	25	33	33
Secondary (Abitur)	13	34	25	11	7
	100	100	100	100	100

.../

Socio-Demographic Breakdown

/...

Table A 4
Cable pilot project
Region Ludwigshafen/Vorderpfalz
Panel groups

	Persons in households with CATV and which -		Persons in households with CATV and VCR*) who after receiving CATV record television programs -		
	had VCR from the beginning	acquired VCR later	more than before	about the same amount	less than before
	%	%	%	%	%
Occupation					
Blue-collar workers	20	20	4	23	33
Lower-level white-collar/civil servants	42	32	33	47	33
Upper-level white-collar/civil servants	21	29	33	16	20
Self-employed, the professions	17	19	30	14	13
	100	100	100	100	100
Net monthly income of the chief wage earner					
less than 2,000 DM	13	8	8	14	13
2,000 to less than 2,000 DM	30	29	25	32	27
3,000 to less than 4,000 DM	20	36	21	19	27
4,000 DM or more	19	15	33	15	13
No reply	18	12	13	20	20
	100	100	100	100	100

.../

Socio-Demographic Breakdown

Table A 4
Cable pilot project
Region Ludwigshafen/Vorderpfalz
Panel groups

/...

	Persons in households with CATV and which -		Persons in households with CATV and VCR*) who after receiving CATV record television programs -		
	had VCR from the beginning	acquired VCR later	more than before	about the same amount	less than before
	%	%	%	%	%
Employed	62	59	58	59	80
Not employed	38	41	42	41	20
	100	100	100	100	100
On the average, have the following amount of leisure time on a weekday (hrs./min.)	3'46	3'38	3'49	3'52	3'06
	(n = 120)	(n = 59)	(n = 24)	(n = 80)	(n = 15)

*) Persons owning a video recorder at the time of both measurements

SOURCE: Allensbach Archives, IfD Surveys 1511, 1515

Views on the Quality of Traditional Television Programs and of the New Programs on Cable TV

Table A 5
Cable pilot project
Region Ludwigshafen/Vorderpfalz
Panel groups

	Persons in households with CATV and which -		Persons in households with CATV and VCR*) who after receiving CATV record television programs -		
	had VCR from the beginning	acquired VCR later	more than before	about the same amount	less than before
With respect to the quality of the traditional German television networks ARD and ZDF, stated the end of 1983 that they were -	%	%	%	%	%
"very satisfied" or "satisfied"	21	14	21	16	47
"so-so", "somewhat satisfied, somewhat dissatisfied"	63	54	71	65	33
"not so satisfied" or "pretty dissatisfied"	16	29	8	18	20
No reply	x	3	x	1	x
	100	100	100	100	100
Two years later, in late fall 1985, state that, compared with the ARD and ZDF, the new CATV is -					
"more interesting"	48	46	46	50	47
"more boring"	8	10	8	9	x
"no difference"	44	44	46	41	53
	100	100	100	100	100
	(n = 120)	(n = 59)	(n = 24)	(n = 80)	(n = 15)

*) Persons owning a video recorder at the time of both measurements

x = less than 0.5 percent

SOURCE: Allensbach Archives, IfD Surveys 1511, 1515

Almost All Subscribers to Cable TV Would Recommend That Others Subscribe

Table A 6
Cable pilot project
Region Ludwigshafen/Vorderpfalz
Panel groups

QUESTION: "Assuming that one of your friends asked you for advice about whether he or she should subscribe to cable TV. Would you advise him or her to subscribe to cable TV or would you advise them not to?"

	Persons in households with cable TV -		
	total	with VCR*)	without VCR*)
	%	%	%
Would advise others to get cable TV	84	86	84
Would advise against this	2	2	2
Undecided	14	12	14
	100	100	100
	(n = 544)	(n = 120)	(n = 351)

	Persons in households with CATV and VCR who after receiving CATV record television programs -		
	more than before	about the same amount	less than before
	%	%	%
Would advise others to get cable TV	92	89	67
Would advise against this	x	2	6
Undecided	8	9	27
	100	100	100
	(n = 24)	(n = 80)	(n = 15)

*) At the time of both measuremenmts

x = less than 0.5 percent

SOURCE: Allensbach Archives, IfD Survey 1515